



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5 CHICAGO REGIONAL LABORATORY
536 SOUTH CLARK STREET
CHICAGO, ILLINOIS 60605

Date: 1/29/2014
Subject: Review of Region 5 Data for Veolia, Sauget, IL.
From: Colin Breslin, Chemist
Region 5 Chicago Regional Laboratory
To: RCRA, LCD, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

CB 1/29/14

The data being transmitted under this cover memo successfully passed CRL's internal data review procedures as documented in our current Quality Management Plan (QMP) and appropriate Standard Operating Procedures (SOPs). Please be aware that CRL does not perform data validation which is based on your data quality objectives. This function must be performed independently of the laboratory generating the data.

Results in this report represent only the samples analyzed.

Please have the U.S. EPA Project Manager/Officer call the CRL Sample Coordinator at (312) 353-0375 for any comments or questions.

Attached are Results for: Veolia, Sauget, IL.

Data Management Coordinator and Date Received

Date Transmitted: ____/____/____

Analyses included in this report:

Hg Total CVAA

Hg Total CVAA



Environmental Protection Agency Region 5 Chicago Regional Laboratory

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RCRA, LCD, US EPA Region 5
77 West Jackson Boulevard
Chicago IL, 60604

Project: Veolia, Sauget, IL.
Project Number: [none]
Project Manager: Todd Ramaly

Reported:
Jan-17-14 09:10

Analysis Case Narrative

General Information

Eight non-aqueous liquid samples for the analysis of total mercury by cold vapor atomic absorption (CVAA) were received at the Chicago Regional Laboratory (CRL) on October 24, 2013. The samples were analyzed within the 28 day hold time, except for samples 1310005-03 (VS2-HBW-13B-Comp2C) and 1310005-04 (VS3-HBW-13B-Comp2C). See below under Quality Control for an explanation. The designated analyst, Colin Breslin, can be reached at 312-886-2912.

Sample Analysis and Results

The non-aqueous liquid samples were initially prepared by CRL SOP AIG044B Revision No: 1.0 (EPA 245.1/7470A), the procedure for mercury in water and liquid wastes, but purple color was not maintained after the 5% potassium permanganate digestion step. These samples were deemed not amenable to the mercury in water and liquid wastes procedure. Note, samples 1310005-12 (VeoliaS4-Metals-LBtu) and 1310005-17 (VeoliaS4-DF-LBtu) were designated as aqueous samples, however, the sample matrix contained enough interferents that they could not be analyzed as aqueous samples.

The non-aqueous liquid samples were then analyzed by CRL SOP AIG043B Revision No: 1.0 (EPA 245.5/7471B), based on the customer's request to analyze approximately 0.5 g of the non-aqueous liquids by the mercury in sediment and solids procedure. The following samples were amenable to the digestion procedure at approximately 0.5 g: 1310005-10 (VeoliaS4-Metals-SCC), 1310005-11 (VeoliaS4-Metals-HBtu), 1310005-12 (VeoliaS4-Metals-LBtu), 1310005-16 (VeoliaS4-DF-HBtu), and 1310005-17 (VeoliaS4-DF-LBtu). The following samples were not amenable to the digestion procedure at approximately 0.5 g, but were amenable at approximately 0.1 g: 1310005-03 (VS2-HBW-13B-Comp2C), 1310005-04 (VS3-HBW-13B-Comp2C), and 1310005-15 (VeoliaS4-DF-SCC). The samples analyzed at approximately 0.1 g were reported as "U – the analyte was not detected at or above the reported limit". The reduction in sample aliquot to a weight that was amenable to the digestion procedure raised the reporting limit sufficiently that a quantitative result could not be reported.

The final reported units for the non-aqueous liquid samples are not dry-weight corrected. The final reporting unit is mg/kg wet.

Quality Control

All Quality Control (QC) audits were within CRL limits for the requested analytes or did not result in qualification

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of the data.

Hold Time

Samples 1310005-03 (VS2-HBW-13B-Comp2C) and 1310005-04 (V3-HBW-13B-Comp2C) were not analyzed within the 28 day hold time. Multiple attempts to establish a sample aliquot size that was amenable to the digestion procedure had to be performed because of the difficult sample matrix. The analytical instrument also needed to have a component replaced during the course of this work, which led to further delays. Unfortunately, the hold time was missed. No additional data flags were applied to these samples since the results were reported as "U – the analyte was not detected at or above the reported limit". No significant impacts were expected for the overall dataset.

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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
VS2-HBW-13B-Comp2C	1310005-03	Water	Oct-10-13 15:30	Oct-24-13 16:00
VS3-HBW-13B-Comp2C	1310005-04	Water	Oct-17-13 15:46	Oct-24-13 16:00
VeoliaS4-Metals-SCC	1310005-10	Water	Oct-23-13 15:08	Oct-24-13 16:00
VeoliaS4-Metals-HBtu	1310005-11	Water	Oct-23-13 15:07	Oct-24-13 16:00
VeoliaS4-Metals-LBtu	1310005-12	Water	Oct-23-13 15:06	Oct-24-13 16:00
VeoliaS4-DF-SCC	1310005-15	Water	Oct-23-13 15:38	Oct-24-13 16:00
VeoliaS4-DF-HBtu	1310005-16	Water	Oct-23-13 15:37	Oct-24-13 16:00
VeoliaS4-DF-LBtu	1310005-17	Water	Oct-23-13 15:36	Oct-24-13 16:00

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Mercury by Cold Vapor, EPA 245.5 (modified)

US EPA Region 5 Chicago Regional Laboratory

VS2-HBW-13B-Comp2C (1310005-03) Water Sampled: Oct-10-13 15:30 Received: Oct-24-13 16:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			0.07	mg/kg wet	1	B311061	Nov-19-13	Nov-19-13

VS3-HBW-13B-Comp2C (1310005-04) Water Sampled: Oct-17-13 15:46 Received: Oct-24-13 16:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			0.07	mg/kg wet	1	B311061	Nov-19-13	Nov-19-13

VeoliaS4-Metals-SCC (1310005-10) Water Sampled: Oct-23-13 15:08 Received: Oct-24-13 16:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	0.04			0.02	mg/kg wet	1	B311037	Nov-06-13	Nov-06-13

VeoliaS4-Metals-HBtu (1310005-11) Water Sampled: Oct-23-13 15:07 Received: Oct-24-13 16:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	0.1			0.02	mg/kg wet	1	B311037	Nov-06-13	Nov-06-13

VeoliaS4-Metals-LBtu (1310005-12) Water Sampled: Oct-23-13 15:06 Received: Oct-24-13 16:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	0.1			0.02	mg/kg wet	1	B311061	Nov-19-13	Nov-19-13

VeoliaS4-DF-SCC (1310005-15) Water Sampled: Oct-23-13 15:38 Received: Oct-24-13 16:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			0.09	mg/kg wet	1	B311061	Nov-19-13	Nov-19-13

VeoliaS4-DF-HBtu (1310005-16) Water Sampled: Oct-23-13 15:37 Received: Oct-24-13 16:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	0.05			0.02	mg/kg wet	1	B311061	Nov-19-13	Nov-19-13

VeoliaS4-DF-LBtu (1310005-17) Water Sampled: Oct-23-13 15:36 Received: Oct-24-13 16:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed

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Mercury by Cold Vapor, EPA 245.5 (modified)

US EPA Region 5 Chicago Regional Laboratory

VeoliaS4-DF-LBtu (1310005-17) Water Sampled: Oct-23-13 15:36 Received: Oct-24-13 16:00

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	0.1			0.02	mg/kg wet	1	B311037	Nov-06-13	Nov-06-13

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Notes and Definitions

U Not Detected
NR Not Reported

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Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			This is a modified report VERSION 6.12:2006
1310005-03			No solids data
1310005-03	Hg Total CVAA		Sampled->Prepared > 28.00 days
1310005-03	Hg Total CVAA		Water batched as Soil
1310005-04			No solids data
1310005-04	Hg Total CVAA		Sampled->Prepared > 28.00 days
1310005-04	Hg Total CVAA		Water batched as Soil
1310005-10			No solids data
1310005-10	Hg Total CVAA		Water batched as Soil
1310005-11			No solids data
1310005-11	Hg Total CVAA		Water batched as Soil
1310005-12			No solids data
1310005-12	Hg Total CVAA		Water batched as Soil
1310005-15			No solids data
1310005-15	Hg Total CVAA		Water batched as Soil
1310005-16			No solids data
1310005-16	Hg Total CVAA		Water batched as Soil
1310005-17			No solids data
1310005-17	Hg Total CVAA		Water batched as Soil
B311037-DUP1	Hg Total CVAA	Mercury	Exceeds RPD control limit

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Sample, Log and Extraction Comments

1310005-03

Hg Total CVAA

pH = 4

pH = 4

1310005-04

Hg Total CVAA

pH = 4

pH = 4

1310005-10

Hg Total CVAA

pH = 4

pH = 4

1310005-11

Hg Total CVAA

pH = 5

pH = 5

1310005-12

Hg Total CVAA

pH = 8

pH = 8

1310005-15

Hg Total CVAA

pH = 4

pH = 4

1310005-16

Hg Total CVAA

pH = 5

pH = 5

1310005-17

Hg Total CVAA

pH = 8

pH = 8

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